Daily Dose of Aptitude-2-07-2019

1.A trader mixes 26 kg of rice at Rs. 20 per kg with 30 kg of rice of other variety at Rs. 36 per kg and sells the mixture at Rs. 30 per kg. His profit percent is:

a. 8%

b. 5%

c. 10%

d.None of these

2. There are 5 multiple choice questions in an examination. How many sequences of answers are possible, if the first three questions have 4 choices each and the next two have 6 choices each?

a. 1224

b. 2426

c. 2304

d. 1112

3. A class has 8 football players. A 5-member team and a captain will be selected out of these 8 players. How many different selections can be made ?

a. 168

b. 210

c. 10!/6!

d. 1260

4. A deer and a rabbit can complete a full round on a circular track in 9 minutes and 5 minutes respectively. P, Q, R and S are the four consecutive points on the circular track which are equidistant from each other. P is opposite to R and Q is opposite to S. After how many minutes will they meet together for the first time at the starting point, when both have started simultaneously from the same point in same direction?

a.15 minutes

b.25 minutes

c.35 minutes

d.45 minutes

5. The ratio between the sides of a room is 3:2. The cost of white washing the ceiling of the room at 5 Rs per square metre is Rs. 2500 and the cost of papering the walls at Rs. 2 per square metre is Rs. 960. The height of the room is?

a. 4.8 m

b. 6.5 m

c. 3.5 m

d. 8.5 m

6. Rohith started a business by investing Rs. 3600. After somedays, Puneeth joined him by investing Rs. 2400. At the end of one year, the profit was divided in the ratio 2 : 1. After how many months did Puneeth join the business?

a. 2 months

b. 2.5 months

c. 3 months

d. 3.5 months

7. Twenty times a positive integer is less than its square by 96. What is the integer ?

a. 42

b. 36

c. 48

d. 24

8. Hemavathi gets 3 marks for each right sum and loses 2 marks for each wrong sum. He attempts 35 sums and obtains 60 marks. The number of sums attempted correctly is ?

a. 23

b. 24

c. 25

d. 26

9. The average number of visitors of a library in the first 4 days of a week was 58. The average for the 2nd, 3rd, 4th and 5th days was 60.If the number of visitors on the 1st and 5th days were in the ratio 8 : 9. Then what is the number of visitors on the 5th day of the library ?

a. 54

b. 72

c. 64

d. 68

10. 38% of 7500 + ?% of 375 = 50% of 6000

a. 50

b. 40

c. 20

d. 60

Answers and Solutions

Ans 1:b

Sol: C.P. of 56 kg rice = Rs. (26 x 20 + 30 x 36) = Rs. (520 + 1080) = Rs. 1600.

S.P. of 56 kg rice = Rs. (56 x 30) = Rs. 1680.

Gain =(80/1600*100) % = 5%

Ans 2: c

Sol: Number of questions = 5

Possibilities of choices for each question 1 to 5 respectively = 4, 4, 4, 6, 6

Required total number of sequences

= 4 x 4 x 4 x 6 x 6

= 2304.

Ans 3: a

Sol:

we can select the 5 member team out of the 8 in 8C5 ways = 56 ways.

The captain can be selected from amongst the remaining 3 players in 3 ways.

Therefore, total ways the selection of 5 players and a captain can be made = 56x3 = 168 ways.

Ans 4: d

Sol: Time taken by a deer to complete one round = 9 minutes

Time taken by a rabbit to complete one round = 5 minutes

They meet together for the first time at the starting point = LCM of 9 and 5 = 45 minutes.

Ans 5: a

Sol:

Area of Ceiling = Total Cost / Cost of 1 sq. Unit

= 2500/5 = 500

l:b = 2x:3x

l*b = 5x2 = 500

l = 30m & b = 20 m

Area of the 4 wall = 960/2 = 480

Height = 480 / 2(30 + 20) = 4.8m

Ans 6: c

Sol: Ratio of profit of Rohith and Puneeth = 3600 x 12 : 2400 x P

= 3600 x 12/2400P = 2/1

=> P = 9

So, Puneeth joined the business after (12 - P) = 12 - 9 = 3 months.

Ans 7: d

Sol: Let the integer be x. Then,

X^2 - 20x = 96

(x + 4)(x - 24) = 0

x = 24

Ans 8: d

Sol: Let, Hema attempted 'k' sum correctly, then

k x 3 -2 x(35-k) = 60

5k = 130

k = 26

so 26 correct sums.

Ans 9: b

Sol: If number of visitors on 1st, 2nd, 3rd, 4th & 5th day are k, l, m, n & o respectively, then

k + l + m + n = 58 x 4 = 232 ---- (i) &

l + m + n + o = 60 x 4 = 240 ---- (ii)

Subtracting (i) from (ii), we get

o-k = 8 ---(iii)

Given, k/o = 8/9 ----(iv)

So from (iii) & (iv), we get

a = 64, e = 72

Therefore, number of visitors on 5th day is 72.

Ans 10: b

Sol: Let ? = p

38 x 7500/100 + p x 375/100 = 50 x 6000/100

=> 38 x 75 + 3.75p = 3000

=> 3.75p = 3000 - 2850

=> p = 150/3.75

=> p = ? = 40